

# **Notice of Allowability**

Application No.

10/004,126

Examiner

Fred I. Ehichioya

Applicant(s)

DUKE ET AL.

Art Unit

2162

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/29/2005.
2. ☒ The allowed claim(s) is/are 31 - 44 (renumbered 1 - 14).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.


**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## **Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**SHAHID ALAM**  
**PRIMARY EXAMINER**

*AT*

## DETAILED ACTION

### *Examiner's Amendment*

1. During telephone conversation with Michael J. Bell, Attorney for the Applicants, Registration Number 39,604 on September 27, 2005 authorizations for this Examiner's amendment was given in a telephone interview.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

*In the claims,*

*Please amend claim 31.*

Claim 31. Line 1, after A please insert - - computer implemented - -

*Please amend claim 32.*

Claim 32. Line 1, after A please insert - - computer implemented - -

*Please amend claim 33.*

Claim 33. Line 1, after A please insert - - computer implemented - -

***Allowable Subject Matter***

2. Claims 31 – 44 (renumbered 1 – 14) are allowed over the prior art of record.

3. The following is an examiner's statement of reasons for allowance:

The prior art of record, either singularly or in combination, fail to anticipate or render obvious the recited feature "associating each non-leaf node with a corresponding set of keys wherein each key in said corresponding set of keys further corresponds to at least one child node of said non-leaf node; providing each leaf node with a related set of keys, wherein said related set of keys includes each key associated with each non-leaf node on said corresponding path from said leaf node to said root node wherein said corresponding set of keys associated with each non-leaf node includes  $(2^m - 1$  or  $2^m - 2$  or  $(n-1) * (2^m - 1)$  ) keys where  $m$  is the maximum number of child nodes that may be associated with each non-leaf node.", as recited in the independent claims.

The dependent claims, being definite, further limiting, and fully enabled by the specification are also allowed.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**Conclusion**


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred I. Ehichioya whose telephone number is 571-272-4034. The examiner can normally be reached on M - F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fred I. Ehichioya  
Patent Examiner  
Art Unit 2162

September 28, 2005

  
SHAHID ALAM  
PRIMARY EXAMINER